GCCGCGGCGCCCGAGGCGGGAGCAAGAGGCGCCGGGAGCCGCGAGGATCCACC
GCCGCCGCGCGCGCCATGGAGCCCGAGTGAGCGCGCGGCGCTCCCGGCCGCCG
GACGACATGGAAACGGCGCCGACCCGGGCCCCTCCGCCGCCGCCGCCGCCGCT
GCTGCTGCTGGTGCTGTACTGCAGCTTGGTCCCCGCCGCGGCCTCACCGCTCC
TGTTGTTTGCCAACCGCCGGGATGTGCGGCTAGTGGATGCCGGCGGAGTGAAG
CTGGAGTCCACCATTGTGGCCAGTGGCCTGGAGGATGCAGCTGCTGTAGACTT
CCAGTTCTCCAAGGGTGCTGTGTACTGGACAGATGTGAGCGAGGAGGCCATCA
AACAGACCTACCTGAACCAGACTGGAGCTGCTGCACAGAACATTGTCATCTCG
GGCCTCGTGTCACCTGATGGCCTGGCCTGTGACTGGGTTGGCAAGAAGCTGTA
CTGGACGGACTCCGAGACCAACCGCATTGAGGTTGCCAACCTCAATGGGACGT
CCCGTAAGGTTCTCTTCTGGCAGGACCTGGACCAGCCAAGGGCCATTGCCCTG
GATCCTGCACATGGGTACATGTACTGGACTGACTGGGGGGAAGCACCCCGGAT
CGAGCGGGCAGGGATGGATGGCAGTACCCGGAAGATCATTGTAGACTCCGACA
TTTACTGGCCCAATGGGCTGACCATCGACCTGGAGGAACAGAAGCTGTACTGG
GCCGATGCCAAGCTCAGCTTCATCCACCGTGCCAACCTGGACGGCTCCTTCCG
GCAGAAGGTGGTGGAGGGCAGCCTCACTCACCCTTTTGCCCTGACACTCTCTG
GGGACACACTCTACTGGACAGACTGGCAGACCCGCTCCATCCACGCCTGCAAC
AAGTGGACAGGGGAGCAGAGGAAGGAGATCCTTAGTGCTCTGTACTCACCCAT
GGACATCCAAGTGCTGAGCCAGGAGCGGCAGCCTCCCTTCCACACACCATGCG
AGGAGGACAACGGTGGCTGTTCCCACCTGTGCCTGCTGTCCCCGAGGGAGCCT
TTCTACTCCTGTGCCTGCCCCACTGGTGTGCAGTTGCAGGACAATGGCAAGAC
GTGCAAGACAGGGGCTGAGGAAGTGCTGCTGCTGGCTCGGAGGACAGACCTGA
GGAGGATCTCTCTGGACACCCCTGACTTCACAGACATAGTGCTGCAGGTGGGC
GACATCCGGCATGCCATTGCCATTGACTACGATCCCCTGGAGGGCTACGTGTA
CTGGACCGATGATGAGGTGCGGGCTATCCGCAGGGCGTACCTAGATGGCTCAG
GTGCGCAGACACTTGTGAACACTGAGATCAATGACCCCGATGGCATTGCTGTG
GACTGGGTCGCCCGGAACCTCTACTGGACAGATACAGGCACTGACAGAATTGA
GGTGACTCGCCTCAACGGCACCTCCCGAAAGATCCTGGTATCTGAGGACCTGG
ACGAACCGCGAGCCATTGTGTTGCACCCTGTGATGGGCCTCATGTACTGGACA
GACTGGGGGGAGAACCCCAAAATCGAATGCGCCAACCTAGATGGGAGAGATCG
GCATGTCCTGGTGAACACCTCCCTTGGGTGGCCCAATGGACTGGCCCTGGACC
TGCAGGAGGGCAAGCTGTACTGGGGGGATGCCAAAACTGATAAAATCGAGGTG
ATCAACATAGACGGGACAAAGCGGAAGACCCTGCTTGAGGACAAGCTCCCACA
CATTTTTGGGTTCACACTGCTGGGGGACTTCATCTACTGGACCGACTGGCAGA
GACGCAGTATTGAAAGGGTCCACAAGGTCAAGGCCAGCCGGGATGTCATCATT
GATCAACTCCCCGACCTGATGGGACTCAAAGCCGTGAATGTGGCCAAGGTTGT
CGGAACCAACCCATGTGCGGATGGAAATGGAGGGTGCAGCCATCTGTGCTTCT
TCACCCCACGTGCCACCAAGTGTGGCTGCCCCATTGGCCTGGAGCTGTTGAGT
GACATGAAGACCTGCATAATCCCCGAGGCCTTCCTGGTATTCACCAGCAGAGC
CACCATCCACAGGATCTCCCTGGAGACTAACAACAACGATGTGGCTATCCCAC
TCACGGGTGTCAAAGAGGCCTCTGCACTGGACTTTGATGTGTCCAACAATCAC

FIGURE 1A

ATCTACTGGACTGATGTTAGCCTCAAGACGATCAGCCGAGCCTTCATGAATGG
GAGCTCAGTGGAGCACGTGATTGAGTTTGGCCTCGACTACCCTGAAGGAATGG
CTGTGGACTGGATGGGCAAGAACCTCTATTGGCGGACACAGGGACCAACAGG
ATTGAGGTGGCCCGGCTGGATGGGCAGTTCCGGCAGGTGCTTGTGTGGAGAGA
CCTTGACAACCCCAGGTCTCTGGCTCTGGATCCTACTAAAGGCTACATCTACT
GGACTGAGTGGGGTGGCAAGCCAAGGATTGTGCGGGCCTTCATGGATGGGACC
AATTGTATGACACTGGTAGACAAGGTGGGCCGGGCCAACGACCTCACCATTGA
TTATGCCGACCAGCGACTGTACTGGACTGACCTGGACACCAACATGATTGAGT
CTTCCAACATGCTGGGTCAGGAGCGCATGGTGATAGCTGACGATCTGCCCTAC
CCGTTTGGCCTGACTCAATATAGCGATTACATCTACTGGACTGACTGGAACCT
GCATAGCATTGAACGGGCGGACAAGACCAGTGGGCGGAACCGCACCCTCATCC
AGGGTCACCTGGACTTCGTCATGGACATCCTGGTGTTCCACTCCTCCCGTCAG
GATGGCCTCAACGACTGCGTGCACAGCAATGGCCAGTGTGGGCAGCTGTGCCT
CGCCATCCCCGGAGGCCACCGCTGTGGCTGTGCTTCACACTACACGCTGGACC
CCAGCAGCCGCAACTGCAGCCCGCCCTCCACCTTCTTGCTGTTCAGCCAGAAA
TTTGCCATCAGCCGGATGATCCCCGATGACCAGCTCAGCCCGGACCTTGTCCT
ACCCCTTCATGGGCTGAGGAACGTCAAAGCCATCAACTATGACCCGCTGGACA
AGTTCATCTACTGGGTGGACGGGCGCCAGAACATCAAGAGGGCCAAGGACGAC
GGTACCCAGCCCTCCATGCTGACCTCTCCCAGCCAAAGCCTGAGCCCAGACAG
ACAGCCACACGACCTCAGCATTGACATCTACAGCCGGACACTGTTCTGGACCT
GTGAGGCCACCAACACTATCAATGTCCACCGGCTGGATGGGGATGCCATGGGA
GTGGTGCTTCGAGGGGACCGTGACAAGCCAAGGGCCATTGCTGTCAATGCTGA
GCGAGGGTACATGTACTTTACCAACATGCAGGACCATGCTGCCAAGATCGAGC
GAGCCTCCCTGGATGGCACAGAGCGGGAGGTCCTCTTCACCACAGGCCTCATC
CGTCCCGTGGCCCTTGTGGTGGACAATGCTCTGGGCAAGCTCTTCTGGGTGGA
TGCCGACCTAAAGCGAATCGAAAGCTGTGACCTCTCTGGGGCCAACCGCCTGA
CCCTGGAAGATGCCAACATCGTACAGCCAGTAGGTCTGACAGTGCTGGGCAGG
CACCTCTACTGGATCGACCGCCAGCAGCAGATGATCGAGCGCGTGGAGAAGAC
CACTGGGGACAAGCGGACTAGGGTTCAGGGCCGTGTCACCCACCTGACAGGCA
TCCATGCCGTGGAGGAAGTCAGCCTGGAGGAGTTCTCAGCCCATCCTTGTGCC
CGAGACAATGGCGGCTGCTCCCACATCTGTATCGCCAAGGGTGATGGAACACC
GCGCTGCTCGTGCCCTGTCCACCTGGTGCTCCTGCAGAACCTGCTGACTTGTG
GTGAGCCTCCTACCTGCTCCCCTGATCAGTTTGCATGTACCACTGGTGAGATC
GACTGCATCCCCGGAGCCTGGCGCTGTGACGGCTTCCCTGAGTGTGCTGACCA
GAGTGATGAAGAAGGCTGCCCAGTGTGCTCCGCCTCTCAGTTCCCCTGCGCTC
GAGGCCAGTGTGTGGACCTGCGGTTACGCTGCGACGGTGAGGCCGACTGCCAG
GATCGCTCTGATGAAGCTAACTGCGATGCTGTCTGTCTGCCCAATCAGTTCCG
GTGCACCAGCGGCCAGTGTGTCCTCATCAAGCAACAGTGTGACTCCTTCCCCG
ACTGTGCTGATGGGTCTGATGAGCTCATGTGTGAAATCAACAAGCCACCCTCT
GATGACATCCCAGCCCACAGCAGTGCCATTGGGCCCGTCATTGGTATCATCCT
CTCCCTCTTCGTCATGGGCGGGGTCTACTTTGTCTGCCAGCGTGTGATGTGCC

FIGURE 1B

AGCGCTACACAGGGGCCAGTGGGCCCTTTCCCCACGAGTATGTTGGTGGAGCC
CCTCATGTGCCTCTCAACTTCATAGCCCCAGGTGGCTCACAGCACGGTCCCTT
CCCAGGCATCCCGTGCAGCAAGTCCGTGATGAGCTCCATGAGCCTGGTGGGGG
GGCGCGGCAGCGTGCCCCTCTATGACCGGAATCACGTCACTGGGGCCTCATCC
AGCAGCTCGTCCAGCACAAAGGCCACACTATATCCGCCGATCCTGAACCCACC
CCCGTCCCCGGCCACAGACCCCTCTCTCTACAACGTGGACGTGTTTTATTCTT
CAGGCATCCCGGCCACCGCTAGACCATACAGGCCCTACGTCATTCGAGGTATG
GCACCCCCAACAACACCGTGCAGCACAGATGTGTGTGACAGTGACTACAGCAT
CAGTCGCTGGAAGAGCAGCAAATACTACCTGGACTTGAATTCGGACTCAGACC
CCTACCCCCCCCCGCCCACCCCCCACAGCCAGTACCTATCTGCAGAGGACAGC
TGCCCACCCTCACCAGGCACTGAGAGGAGTTACTGCCACCTCTTCCCGCCCCC
ACCGTCCCCCTGCACGGACTCGTCCTGACCTCGGCCGTCCACCCGGCCCTGCT
GCCTCCCTGTAAATATTTTTAAATATGAACAAAGGAAAAATATATTTTATGAT
TTAAAAAATAAATATAATTGGGGTTTTTAACAAGTGAGAAATGTGAGCGGTGA
AGGGGTGGGCAGGGCTGGGAAACTTTTCTAG (SEQ ID NO:1)

FIGURE 1C

METAPTRAPPPPPPPLLLLVLYCSLVPAAASPLLLFANRRDVRLVDAGGVKLE
STIVASGLEDAAAVDFQFSKGAVYWTDVSEEAIKQTYLNQTGAAAQNIVISGL
VSPDGLACDWVGKKLYWTDSETNRIEVANLNGTSRKVLFWQDLDQPRAIALDP
AHGYMYWTDWGEAPRIERAGMDGSTRKIIVDSDIYWPNGLTIDLEEQKLYWAD
AKLSFIHRANLDGSFRQKVVEGSLTHPFALTLSGDTLYWTDWQTRSIHACNKW
TGEQRKEILSALYSPMDIQVLSQERQPPFHTPCEEDNGGCSHLCLLSPREPFY
SCACPTGVQLQDNGKTCKTGAEEVLLLARRTDLRRISLDTPDFTDIVLQVGDI
RHAIAIDYDPLEGYVYWTDDEVRAIRRAYLDGSGAQTLVNTEINDPDGIAVDW
VARNLYWTDTGTDRIEVTRLNGTSRKILVSEDLDEPRAIVLHPVMGLMYWTDW
GENPKIECANLDGRDRHVLVNTSLGWPNGLALDLQEGKLYWGDAKTDKIEVIN
IDGTKRKTLLEDKLPHIFGFTLLGDFIYWTDWQRRSIERVHKVKASRDVIIDQ
LPDLMGLKAVNVAKVVGTNPCADGNGGCSHLCFFTPRATKCGCPIGLELLSDM
KTCIIPEAFLVFTSRATIHRISLETNNNDVAIPLTGVKEASALDFDVSNNHIY
WTDVSLKTISRAFMNGSSVEHVIEFGLDYPEGMAVDWMGKNLYWADTGTNRIE
VARLDGQFRQVLVWRDLDNPRSLALDPTKGYIYWTEWGGKPRIVRAFMDGTNC
MTLVDKVGRANDLTIDYADQRLYWTDLDTNMIESSNMLGQERMVIADDLPYPF
GLTQYSDYIYWTDWNLHSIERADKTSGRNRTLIQGHLDFVMDILVFHSSRQDG
LNDCVHSNGQCGQLCLAIPGGHRCGCASHYTLDPSSRNCSPPSTFLLFSQKFA
ISRMIPDDQLSPDLVLPLHGLRNVKAINYDPLDKFIYWVDGRQNIKRAKDDGT
QPSMLTSPSQSLSPDRQPHDLSIDIYSRTLFWTCEATNTINVHRLDGDAMGVV
LRGDRDKPRAIAVNAERGYMYFTNMQDHAAKIERASLDGTEREVLFTTGLIRP
VALVVDNALGKLFWVDADLKRIESCDLSGANRLTLEDANIVQPVGLTVLGRHL
YWIDRQQQMIERVEKTTGDKRTRVQGRVTHLTGIHAVEEVSLEEFSAHPCARD
NGGCSHICIAKGDGTPRCSCPVHLVLLQNLLTCGEPPTCSPDQFACTTGEIDC
IPGAWRCDGFPECADQSDEEGCPVCSASQFPCARGQCVDLRLRCDGEADCQDR
SDEANCDAVCLPNQFRCTSGQCVLIKQQCDSFPDCADGSDELMCEINKPPSDD
IPAHSSAIGPVIGIILSLFVMGGVYFVCQRVMCQRYTGASGPFPHEYVGGAPH
VPLNFIAPGGSQHGPFPGIPCSKSVMSSMSLVGGRGSVPLYDRNHVTGASSSS
SSSTKATLYPPILNPPPSPATDPSLYNVDVFYSSGIPATARPYRPYVIRGMAP
PTTPCSTDVCDSDYSISRWKSSKYYLDLNSDSDPYPPPPTPHSQYLSAEDSCP
PSPGTERSYCHLFPPPPSPCTDSS (SEQ ID NO:2)

FIGURE 2

Construct

Gene:	193	**GI Number(s):**	6678715
Gene Family:	EGF domain protein		
Gene Subfamily:	Low-density lipoprotein receptor		
Gene Sequence:	full-length cDNA, Mouse		

underlined = deleted in targeting construct

[ ] = sequence flanking Neo insert in targeting construct

GCCGCGGCGCCCGAGGCGGGAGCAAGAGGCGCCGGGAGCCGCGAGGATCCACCGCCGCCG
CGCGCGCCATGGAGCCCGAGTGAGCGCGCGGCGCTCCCGGCCGCCGGACGACATGGAAAC
GGCGCCGACCCGGGCCCCTCCGCCGCCGCCGCCGCTGCTGCTGCTGGTGCTGTACTG
CAGCTTGGTCCCCGCCGCGGCCTCACCGCTCCTGTTGTTTGCCAACCGCCGGGATGTGCG
GCTAGTGGATGCCGGCGGAGTGAAGCTGGAGTCCACCATTGTGGCCAGTGGCCTGGAGGA
TGCAGCTGCTGTAGACTTCCAGTTCTCCAAGGGTGCTGTGTACTGGACAGATGTGAGCGA
GGAGGCCATCAAACAGACCTACCTGAACCAGACTGGAGCTGCTGCACAGAACATTGTCAT
CTCGGGCCTCGTGTCACCTGATGGCCTGGCCTGTGACTGGGTTGGCAAGAAGCTGTACTG
GACGGACTCCGAGACCAACCGCATTGAGGTTGCCAACCTCAATGGGACGTCCCGTAAGGT
TCTCTTCTGGCAGGACCTGGACCAGCCAAGGGCCATTGCCCTGGATCCTGCACATGGGTA
CATGTACTGGACTGACTGGGGGGAAGCACCCCGGATCGAGCGGGCAGGGATGGATGGCAG
TACCCGGAAGATCATTGTAGACTCCGACATTTACTGGCCCAATGGGCTGACCATCGACCT
GGAGGAACAGAAGCTGTACTGGGCCGATGCCAAGCTCAGCTTCATCCACCGTGCCAACCT
GGACGGCTCCTTCCGGCAGAAGGTGGTGGAGGGCAGCCTCACTCACCCTTTTGCCCTGAC
ACTCTCTGGGGACACACTCTACTGGACAGACTGGCAGACCCGCTCCATCCACGCCTGCAA
CAAGTGGACAGGGGAGCAGAGGAAGGAGATCCTTAGTGCTCTGTACTCACCCATGGACAT
CCAAGTGCTGAGCCAGGAGCGGCAGCCTCCCTTCCACACACCATGCGAGGAGGACAACGG
TGGCTGTTCCCACCTGTGCCTGCTGTCCCCGAGGGAGCCTTTCTACTCCTGTGCCTGCCC
CACTGGTGTGCAGTTGCAGGACAATGGCAAGACGTGCAAGACAGGGGCTGAGGAAGTGCT
GCTGCTGGCTCGGAGGACAGACCTGAGGAGGATCTCTCTGGACACCCCTGACTTCACAGA
CATAGTGCTGCAGGTGGGCGACATCCGGCATGCCATTGCCATTGACTACGATCCCCTGGA
GGGCTACGTGTACTGGACCGATGATGAGGTGCGGGCTATCCGCAGGGCGTACCTAGATGG
CTCAGGTGCGCAGACACTTGTGAACACTGAGATCAATGACCCCGATGGCATTGCTGTGGA
CTGGGTCGCCCGGAACCTCTACTGGACAGATACAGGCACTGACAGAATTGAGGTGACTCG
CCTCAACGGCACCTCCCGAAAGATCCTGGTATCTGAGGACCTGGACGAACCGCGAGCCAT
TGTGTTGCACCCTGTGATGGGCCTCATGTACTGGACAGACTGGGGGGAGAACCCCAAAAT
CGAATGCGCCAACCTAGATGGGAGAGATCGGCATGTCCTGGTGAACACCTCCCTTGGGTG
GCCCAATGGACTGGCCCTGGACCTGCAGGAGGGCAAGCTGTACTGGGGGGATGCCAAAAC
TGATAAAATCGAGGTGATCAACATAGACGGGACAAAGCGGAAGACCCTGCTTGAGGACAA
GCTCCCACACATTTTTGGGTTCACACTGCTGGGGGACTTCATCTACTGGACCGACTGGCA
GAGACGCAGTATTGAAAGGGTCCACAAGGTCAAGGCCAGCCGGGATGTCATCATTGATCA
ACTCCCCGACCTGATGGGACTCAAAGCCGTGAATGTGGCCAAGGTTGTCGGAACCAACCC
ATGTGCGGATGGAAATGGAGGGTGCAGCCATCTGTGCTTCTTCACCCCACGTGCCACCAA
GTGTGGCTGCCCCATTGGCCTGGAGCTGTTGAGTGACATGAAGACCTGCATAATCCCCGA
GGCCTTCCTGGTATTCACCAGCAGAGCCACCATCCACAGGATCTCCCTGGAGACTAACAA
CAACGATGTGGCTATCCCACTCACGGGTGTCAAAGAGGCCTCTGCACTGGACTTTGATGT
GTCCAACAATCACATCTACTGGACTGATGTTAGCCTCAAGACGATCAGCCGAGCCTTCAT
GAATGGGAGCTCAGTGGAGCACGTGATTGAGTTTGGCCTCGACTACCCTGAAGGAATGGC
TGTGGACTGGATGGGCAAGAACCTCTATTGGGCGGACACAGGGACCAACAGGATTGAGGT
GGCCCGGCTGGATGGGCAGTTCCGGCAGGTGCTTGTGTGGAGAGACCTTGACAACCCCAG
GTCTCTGGCTCTGGATCCTACTAAAGGCTACATCTACTGGACTGAGTGGGGTGGCAAGCC
AAGGATTGTGCGGGCCTTCATGGATGGGACCAATTGTATGACACTGGTAGACAAGGTGGG
CCGGGCCAACGACCTCACCATTGATTATGCCGACCAGCGACTGTACTGGACTGACCTGGA
CACCAACATGATTGAGTCTTCCAACATGCTGGGTCAGGAGCGCATGGTGATAGCTGACGA

FIGURE 3A

TCTGCCCTACCCGTTTGGCCTGACTCAATATAGCGATTACATCTACTGGACTGACTGGAA
CCTGCATAGCATTGAACGGGCGGACAAGACCAGTGGGCGGAACCGCACCCTCATCCAGGG
TCACCTGGACTTCGTCATGGACATCCTGGTGTTCCACTCCTCCCGTCAGGATGGCCTCAA
CGACTGCGTGCACAGCAATGGCCAGTGTGGGCAGCTGTGCCTCGCCATCCCCGGAGGCCA
CCGCTGTGGCTGTGCTTCACACTACACGCTGGACCCCAGCAGCCGCAACTGCAGCCCGCC
CTCCACCTTCTTGCTGTTCAGCCAGAAATTTGCCATCAGCCGGATGATCCCCGATGACCA
GCTCAGCCCGGACCTTGTCCTACCCCTTCATGGGCTGAGGAACGTCAAAGCCATCAACTA
TGACCCGCTGGACAAGTTCATCTACTGGGTGGACGGGCGCCAGAACATCAAGAGGGCCAA
GGACGACGGTACCCAGCCCTCCATGCTGACCTCTCCCAGCCAAAGCCTGAGCCCAGACAG
ACAGCCACACGACCTCAGCATTGACATCTACAGCCGGACACTGTTCTGGACCTGTGAGGC
CACCAACACTATCAATGTCCACCGGCTGGATGGGGATGCCATGGGAGTGGTGCTTCGAGG
GGACCGTGACAAGCCAAGGGCCATTGCTGTCAATGCTGAGCGAGGGTACATGTACTTTAC
CAACATGCAGGACCATGCTGCCAAGATCGAGCGAGCCTCCCTGGATGGCACAGAGCGGGA
GGTCCTCTTCACCACAGGCCTCATCCGTCCCGTGGCCCTTGTGGTGGACAATGCTCTGGG
CAAGCTCTTCTGGGTGGATGCCGACCTAAAGCGAATCGAAAGCTGTGACCTCTCTG[GGG
CCAACCGCCTGACCCTGGAAGATGCCAACATCGTACAGCCAGTAGGTCTGACAGTGCTGG
GCAGGCACCTCTACTGGATCGACCGCCAGCAGCAGATGATCGAGCGCGTGGAGAAGACC]
ACTGGGGACAAGCGGACTAGGGTTCAGGGCCGTGTCACCCACC[TGACAGGCATCCATGC
CGTGGAGGAAGTCAGCCTGGAGGAGTTCT]CAGCCCATCCTTGTGCCCGAGACAATGGCG
GCTGCTCCCACATCTGTATCGCCAAGGGTGATGGAACACCGCGCTGCTCGTGCCCTGTCC
ACCTGGTGCTCCTGCAGAACCTGCTGACTTGTGGTGAGCCTCCTACCTGCTCCCCTGATC
AGTTTGCATGTACCACTGGTGAGATCGACTGCATCCCCGGAGCCTGGCGCTGTGACGGCT
TCCCTGAGTGTGCTGACCAGAGTGATGAAGAAGGCTGCCCAGTGTGCTCCGCCTCTCAGT
TCCCCTGCGCTCGAGGCCAGTGTGTGGACCTGCGGTTACGCTGCGACGGTGAGGCCGACT
GCCAGGATCGCTCTGATGAAGCTAACTGCGATGCTGTCTGTCTGCCCAATCAGTTCCGGT
GCACCAGCGGCCAGTGTGTCCTCATCAAGCAACAGTGTGACTCCTTCCCCGACTGTGCTG
ATGGGTCTGATGAGCTCATGTGTGAAATCAACAAGCCACCCTCTGATGACATCCCAGCCC
ACAGCAGTGCCATTGGGCCCGTCATTGGTATCATCCTCTCCCTCTTCGTCATGGGCGGGG
TCTACTTTGTCTGCCAGCGTGTGATGTGCCAGCGCTACACAGGGGCCAGTGGGCCCTTTC
CCCACGAGTATGTTGGTGGAGCCCCTCATGTGCCTCTCAACTTCATAGCCCCAGGTGGCT
CACAGCACGGTCCCTTCCCAGGCATCCCGTGCAGCAAGTCCGTGATGAGCTCCATGAGCC
TGGTGGGGGGGCGCGGCAGCGTGCCCCTCTATGACCGGAATCACGTCACTGGGGCCTCAT
CCAGCAGCTCGTCCAGCACAAAGGCCACACTATATCCGCCGATCCTGAACCCACCCCCGT
CCCCGGCCACAGACCCCTCTCTCTACAACGTGGACGTGTTTTATTCTTCAGGCATCCCGG
CCACCGCTAGACCATACAGGCCCTACGTCATTCGAGGTATGGCACCCCCAACAACACCGT
GCAGCACAGATGTGTGTGACAGTGACTACAGCATCAGTCGCTGGAAGAGCAGCAAATACT
ACCTGGACTTGAATTCGGACTCAGACCCCTACCCCCCCCCGCCCACCCCCCACAGCCAGT
ACCTATCTGCAGAGGACAGCTGCCCACCCTCACCAGGCACTGAGAGGAGTTACTGCCACC
TCTTCCCGCCCCCACCGTCCCCCTGCACGGACTCGTCCTGACCTCGGCCGTCCACCCGGC
CCTGCTGCCTCCCTGTAAATATTTTTAAATATGAACAAAGGAAAAATATATTTTATGATT
TAAAAAATAAATATAATTGGGGTTTTTAACAAGTGAGAAATGTGAGCGGTGAAGGGGTGG
GCAGGGCTGGGAAACTTTTCTAG

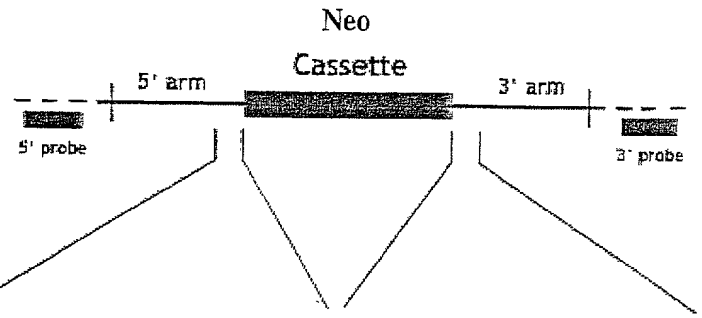
Gene Sequence Structure *	3659 bp	Sequence Deleted	3701 bp
Size of full-length cDNA: 5119 bp			

FIGURE 3B

Targeting Vector* (genomic sequence)

Construct Number: 992

Arm Length:
5': 1.5 kb
3': 2.9 kb



5'>AAATATGCATTATCCTGAGCA
CAGTGGGTCTGGCCCTTCACTTGG
CTGCCACTCATGGAGCCTTTATGC
TAACCACAGGGGCCAACCGCCTGA
CCCTGGAAGATGCCAACATCGTAC
AGCCAGTAGGTCTGACAGTGCTGG
GCAGGCACCTCTACTGGATCGACC
GCCAGCAGCAGATGATCGAGCGTG
TGGAGAAGACC<3'
(SEQ ID NO:3)

5'>TCACTGGCATCCATGCAGTG:
AGGAAGTCAGCCTGGAGGAGTTCT
GTACGTGAGAGGGGACAGTGTTTG
TGGTGGGGTCTCCTGGGGGAAGGT
GAATCAGCCCTACTGGCATCAGAT
GGGCTGCTGGTGCAAGAGCAGTGT
GCCTGAGGAGCTCATGGGCTCAGC
ACCGAAGGCCAGTGCATGTCCAGA
TGTCTGCCTCT<3'
(SEQ ID NO:4)

Targeting Vector
Endogenous Locus

* Not drawn to scale

FIGURE 3C

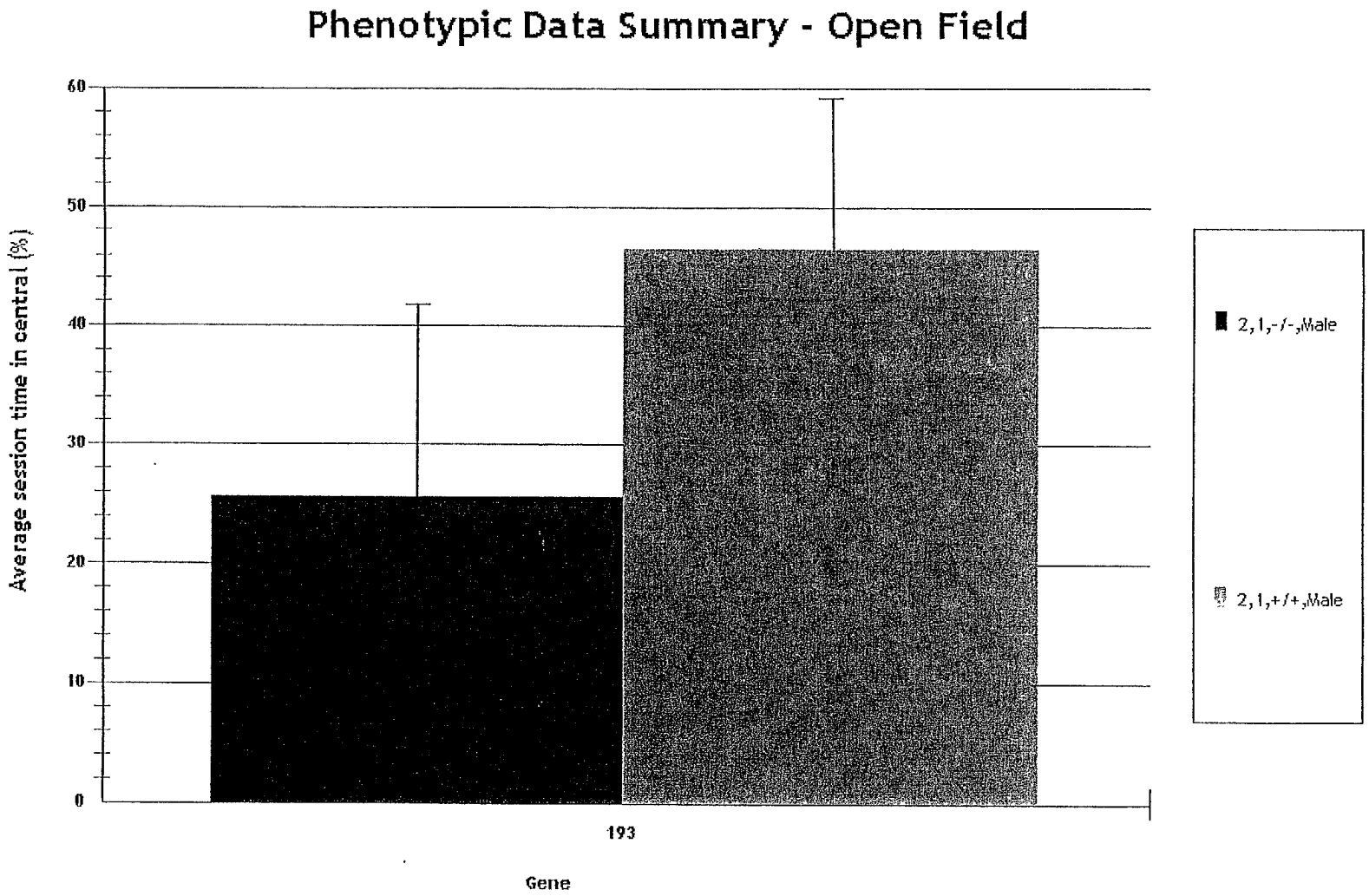

Phenotypic Data Summary - Open Field
Average session time in central (%)
60
50
40
30
20
10
0
193
Gene
2,1,-/-,Male
2,1,+/+,Male

FIGURE 4

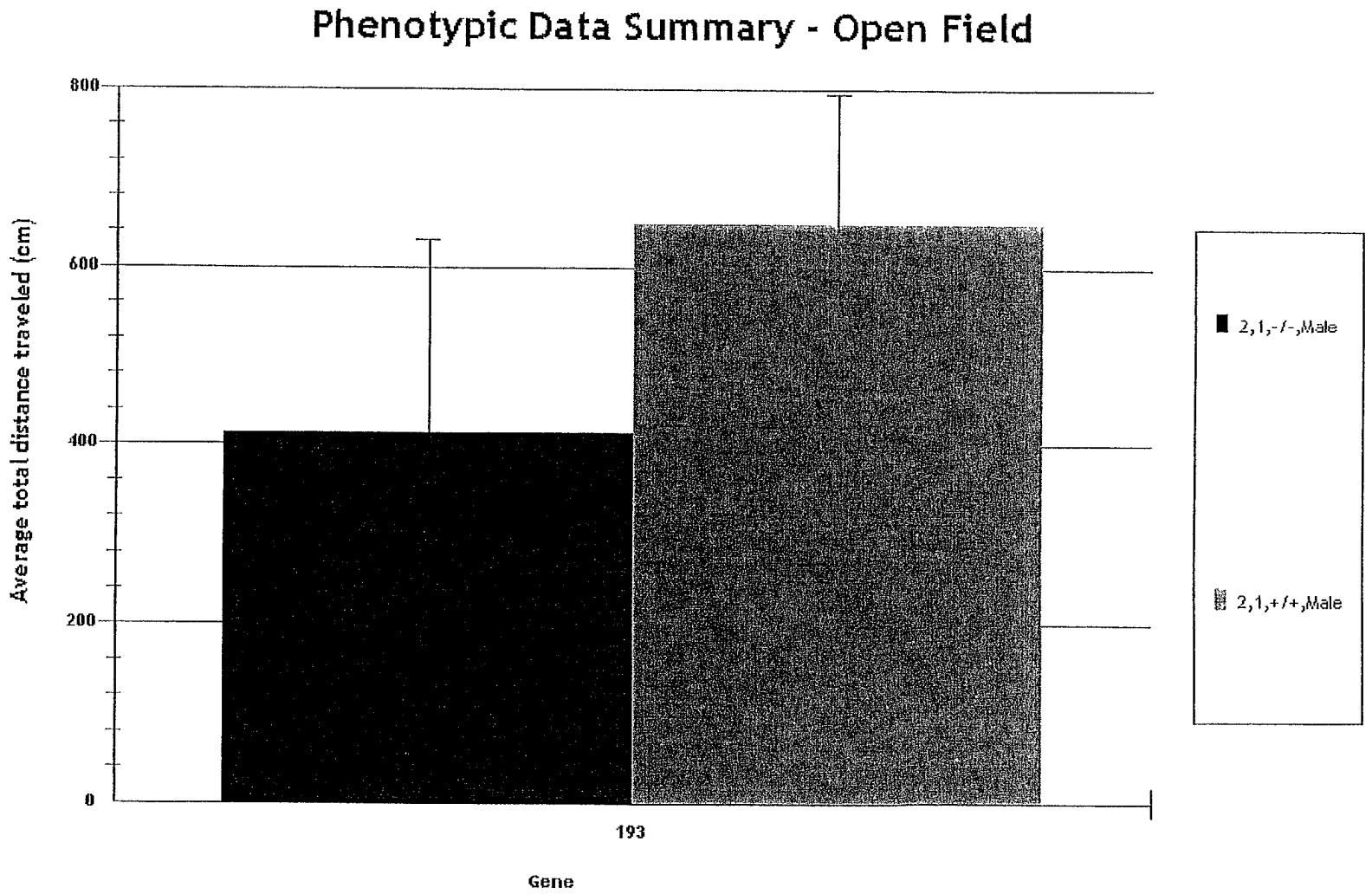

Phenotypic Data Summary - Open Field
Average total distance traveled (cm)
800
600
400
200
0
193
Gene
2,1,-/-,Male
2,1,+/+,Male

FIGURE 5